Vogl, R. J. 1976. An introduction to the plant communities of the Santa Ana and San Jacinto Mountains. *In*: J. Latting, ed., Plant communities of Southern California, p. 77–98. Spec. Publ. 2, Calif. Native Plant Soc., Berkeley.

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NOTEWORTHY COLLECTIONS

Ophioglossum lusitanicum L. subsp. californicum (Prantl) Clausen (Ophioglossaceae).—USA, CA, Merced Co., along Co. Rd. J-16 (Merced Falls Rd.), ca. 2.4 mi (3.8 km) w. of North Side Canal bridge, w.- to s.w.-facing slope ca. 300 m s. of road and along fence row, 25 Apr 1978, *T. Duncan* (with *W. H. Wagner, Jr., A. Smith, T. Lowrey, L. Cserr*) *2759* (UC); Mariposa Co., above Lake McSwain along Merced River at Lake McSwain Rd. and Lake McClure Rd., ca. 0.5 mi (0.8 km) e. of intersection with Co. Rd. J-16, 25 Apr 1978, *Duncan* (et al.) *2757* (UC); Stanislaus Co., ca. 1 mi (1.6 km) n. of La Grange on Co. Rd. J-59 (La Grange Rd.), gravelly s.e.-facing slope above brook ⅛ mi (0.2 km) e. of road, 25 Apr 1978, *Duncan* (et al.) *2756* (UC). Basionym: *Ophioglossum californicum* Prantl; for a taxonomic account, see Clausen [Mem. Torrey Bot. Club 19(2):1–177. 1938].

Previous knowledge. Recorded by Clausen (op. cit., p. 160) from Amador, Monterey, and San Diego cos., also from the States of Baja California Norte and Mexico, Mexico; other subspecies occur in South America, Europe, Africa, Asia, Australia, and New Zealand. Howell and Long [Four Seasons 3(3):1–18. 1970] reported a 1970 collection from near La Grange by Perry Allen, and we have relocated this or a nearby population (cited above). There is also a sight-record from Tuolumne Co. by Perry Allen in 1969 (California Native Plant Society files). [Herbaria consulted: CAS, DS, JEPS, LA, OBI, POM, RSA, SD, UC; published sources: Clausen (op. cit.); Munz, A Calif. fl. 1959; Munz, A fl. S. Calif. 1974; Witham, Ferns San Diego Co. 1972.; Howell and Long (op. cit.); Howitt and Howell, Wasmann J. Biol. 22:1–184. 1964.] The only other species of Adder's-tongue fern in California is *Ophioglossum vulgatum* L., known from a single collection near Sisson, Siskiyou Co., collected in 1894. That species differs in having much larger, more elliptical blades.

Significance. This is the first report of the species from Merced and Mariposa counties. Several old collections are known from the vicinity of Ione, Amador Co. (the most recent collection in 1948 by Wagner), but recent attempts (by Wagner, 1975, and Smith, 1978) to relocate these populations have failed. Herbarium labels and published literature indicate that in the past this species has usually been collected around (at the margins of) vernal pools. However, it now appears that this may be only a "secondary" habitat. The "primary" habitat, at least in the Sierra foothills, seems to be in the Foothill Woodland Community (Munz, 1959) on s.-facing slopes of grazed pastures, with a sparse mixture of annual grasses (*Vulpia* sp., *Bromus* sp.) and forbs (*Erodium* sp., *Crepis* sp., *Juncus* sp., *Lepidium nitidum, Selaginella hansenii, Githopsis* sp., *Orthocarpus* sp., *Trifolium* sp., *Silene* sp., *Cerastium* sp.) with scattered trees of *Quercus douglasii*. The soil has a loose granitic gravel on the surface. Nearly all collections in the Sierra foothills have been made from February through April; after that the soil dries, the plants wither, and the aboveground parts die. During the summer, the ground is hard and baked, and there is no evidence of the plants.

Ophioglossum lusitanicum subsp. *californicum* (as *O. californicum*) has been included on the rare and endangered list of plants for California (Powell, Inv. rare and endangered vasc. pls. California. CNPS Spec. Publ. 1. 1974) and is under review as threatened by the Federal Government (Federal Register 40(127):27844. 1975). In all likelihood it is simply overlooked by collectors. The young leaves are spatulate, 0.5–2.5 (5.0) cm long, often somewhat conduplicate, and appear much like leaves or cotyledons of some small monocots. Fertile spikes are produced on fewer than 25 percent of the plants (perhaps less than 10 percent). Once the "primary" habitat was discerned (quite by

accident), the authors were able to find the plant at four widely separated localities in three counties. Hence, we suspect that it may be a common plant throughout the Sierra foothills (60–300 m) and perhaps also in the coastal ranges. Invariably, it is colonial, no doubt spreading by vegetative proliferation from the roots. Thomas (Southw. Naturalist 24:395–396. 1979; Sida 8:113. 1979) has recently found other species of *Ophioglossum* in Texas and North Carolina to be more common than previously supposed.

Collections from San Diego Co. have also been made from at least two different habitats. Most of the older collections are from margins of vernal pools, especially on Kearny (often spelled Kearney) Mesa. More recent collections are often from slopes in chaparral in sun or partial shade of such plants as *Rhus laurina, Salvia, Ceanothus, Cercocarpus, Adenostoma,* and *Eriogonum.* Several times it has been described as growing in mats of *Selaginella cinerascens.* Altogether, *Ophioglossum* has been collected at more than a dozen sites in San Diego Co., but many of these are now in or near areas where heavy pressure for development exists.—Alan R. Smith, University Herbarium, University of California, Berkeley 94720; Warren H. Wagner, Jr., Department of Botany, University of Michigan, Ann Arbor 48109; and Thomas Duncan, Department of Botany and University Herbarium, University of California, Berkeley 94720. (Received 24 Aug 1979; accepted 7 Dec 1979.)

NOTES AND NEWS

Specific Status for *Encelia californica* var. *asperifolia* (Compositae: Heliantheae).—In 1913, S. F. Blake described a collection (*Anthony 292*; lectotype here designated: GH!; isotypes, F!, US!) from Cedros Island, Baja California Sur, as *Encelia californica* var. *asperifolia.* It is unclear to us why he chose to assign it varietal status under *E. californica* rather than specific status, as he listed a number of characters by which it was distinct from *E. californica*: bushier habit, smaller capitula and leaves, rougher pubescence on stems, leaves, and involucral bracts, and shorter involucres. To this we can add that it has more slender peduncles and, whereas the petioles of var. *californica* are stiff, straight, and diverge from the stem at an ascending 45° angle, those of var. *asperifolia* are more lax, curved, and diverge at nearly a 90° angle. In addition, preliminary evidence indicates substantial differences in the flavonoid aglycones of the two taxa.

The habitat differences are even more striking. Variety *californica* occurs in coastal sage and chaparral from Santa Barbara Co., California, south to El Rosario, Baja California. Variety *asperifolia* is found in the central desert of the Lower California peninsula, south to the Sierra Vizcaíno. The taxa marginally come in contact in the region just south and east of El Rosario; this region also marks the southernmost extent of the coastal sage and the beginning of the desert (Axelrod, Amer. J. Bot. 65:1117–1131. 1978; Shreve and Wiggins, Veg. and fl. Sonoran Desert. 1964). In this region of contact the two taxa interact in a manner like that observed for other well-differentiated species of *Encelia.* There is no gradual transition between the taxa in either morphological or ecogeographic features. Their area of sympatry consists of a very narrow zone (no more than 500 m wide on Mex. hwy 1, 8.4 mi (13.4 km) e. of El Rosario). Within this zone the taxa hybridize; the hybrid individuals (F_1's and recombinants) are essentially confined to areas of natural and man-made disturbance. We have not found any other plants having morphology intermediate between the taxa.

Considering all available information against the background of variation within the genus as a whole, we believe that the variety *asperifolia* is best treated as a distinct species.

Encelia asperifolia (S. F. Blake) Clark & Kyhos, stat. nov.

Based on *Encelia californica* Nuttall var. *asperifolia* S. F. Blake, Proc. Amer. Acad. Arts 49:368. 1913.—Curtis Clark and Donald W. Kyhos, Department of Botany, University of California, Davis 95616. (Received 12 Oct 1979; revision received and accepted 19 Oct 1979.)